

M-9710 US
CLAIMS

What is claimed is:

1. A method of providing the location of a second mobile unit to a first mobile unit, said method comprising:

5 receiving from said first mobile unit a first packet including a current location of said first mobile unit;

receiving from said second mobile unit a second packet including a current location of said second mobile unit;

storing said current locations in a database; and

10 transmitting a data package to said first mobile unit in response to a request from said first mobile unit, wherein said data package comprises said current location of said second mobile unit retrieved from said database.

2. The method of claim 1, wherein said receiving and said storing are repeated at a regular time interval.

15 3. The method of claim 1, said packet further providing at least one of: personal information about a first user, said first user being a user of said first mobile unit;

an announcement; and

20 a request for information concerning the current location of said second mobile unit.

4. The method of claim 3, wherein said first packet further provides said personal information and said data package comprises a list of mobile units used by users having similar personal information as said first user.

25 5. The method of claim 1, wherein said first packet further provides an announcement and a list of recipients, and wherein said data package comprises:

said announcement; and

a location stamp showing the location of said first mobile unit indicated by said first packet.

6. The method of claim 1, wherein said first packet is superimposed with a request for the current location of said second mobile unit, and wherein said transmitting comprises:

obtaining the current location of said second mobile unit from said database; and
5 creating said data package with said current location of said second mobile unit.

7. The method of claim 3, wherein said first packet comprises a request for a notification when said second mobile unit arrives at a reference point, and wherein said transmitting comprises:

calculating a distance between said second mobile unit and said reference point;
10 and
including a notification to said data package when said distance is approximately zero.

8. The method of claim 3, wherein said personal information comprises at least one of:

name of said first user;
telephone number of said first user;
address of said first user;
e-mail address of said first user; and
hobbies of said first user.

20 9. The method of claim 1, wherein said receiving and said transmitting are done through a data network.

10. The method of claim 9, wherein said data network comprises the Internet.

11. The method of claim 9, wherein said data network comprises a wireless communication network, said wireless communication network being selected from a
25 group consisting of CDPD, CDMA, GSM, iDEN, and AMPS.

12. The method of claim 3, further comprising excluding said first mobile unit from a group of potential recipients of said data package if so requested by said second mobile unit.

13. The method of claim 7 wherein said notification comprises at least one of:

sound;
flashing light;
text and
graphics.

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14. An apparatus for tracking the location of a second mobile unit from a first mobile unit, said apparatus comprising:

a processing station that receives location data from said first and second mobile units; and

a database of said location data connected to said processing station.

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15. The apparatus of method 14, further comprising a map storage connected to said processing station.

16. The apparatus of method 14, further comprising a data network through which packets travel between said processing station and said first and said second mobile units.

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17. The apparatus of method 16, wherein said packets comprise a current location of said first and said second mobile units traveling from said first and second mobile units to said processing station at regular time interval.

18. The apparatus of method 16, wherein said packets comprise a current location of said second mobile unit traveling from said processing station to said first mobile unit in response to a request from said first mobile unit.

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19. The apparatus of method 16, wherein said data network comprises the Internet.

20. A method of providing the current location of a second mobile unit to a first mobile unit, said method comprising:

said first mobile unit transmitting a first packet to a service provider computer, said first packet indicating the current location of said first mobile unit;

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said second mobile unit transmitting a second packet to said service provider computer, said second signal indicating the current location of said second mobile unit;

said service provider computer receiving said first and second signals and storing said current locations of said first and said second mobile units in a database;

said service provider computer retrieving said current location of said second mobile unit from said database in response to a request from said first mobile unit; and

said service provider computer transmitting said current location of said second mobile unit to said first mobile unit.

- 5 21. The method of claim 20, wherein said transmitting is done through the Internet and a data network, said data network selected from a group consisting of CDPD, CDMA, GSM, iDEN, and AMPS.

22. The method of claim 20, wherein said request comprises a request to be notified when said second mobile unit arrives at a reference point, said method further
10 comprising:

said service provider computer calculating the distance between said current location of said second mobile unit and said reference point, and

said service provider computer sending a notification to said first mobile unit when said distance is approximately zero.

- 15 23. A system of accessing current location of a second mobile unit from a first mobile unit, said system comprising:

a first mobile unit and second mobile unit connected to a data network; and

a processing station connected to a database containing the current locations of said first and second mobile units, said processing station also connected to said data
20 network..

24. The system of claim 23 wherein each of said first and second mobile units comprises:

a GPS receiver for receiving GPS code sequences;

a processor that converts said GPS code sequences to location data;

- 25 a memory containing conversion data for converting said GPS code sequences to location data; and

a wireless modem connecting said first and said second mobile unit to said data network.

25. The system of claim 24 wherein said conversion data comprises:

preliminary location data; and
correction factors.

26. The system of claim 23, each of said first and second mobile units further comprising a user interface device connected to each of said first and second mobile
5 units, said user interface device selected from a group consisting of personal digital assistant, laptop, wireless phone, and pager.

27. The system of claim 26, said user interface conveying at least one of:
sound;
flashing light;
10 text; and
graphics.

28. The system of claim 23, wherein said data network comprises the Internet.

29. The system of claim 23, wherein said data network comprises a wireless
communication network selected from a group consisting of CDPD, CDMA, GSM,
15 AMPS, and iDEN.

30. The system of claim 23, wherein said database comprises:
a storage for personal information of users;
a map storage; and
a storage for the current locations of said first and second mobile units.

20 31. The system of claim 24, wherein each of said first and second mobile units comprises a plurality of mobile units.